



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-----------------|----------------------|-------------------------|------------------|
| 09/522,470 | 03/09/2000 | Hiroshi Katakura | 000267 | 3147 |
| 23850 | 7590 05/06/2004 | | EXAMINER | |
| ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP | | | DO, CHAT C | |
| 1725 K STRE | ET, NW | | ADTINUT | DARRE LURANTE |
| SUITE 1000 | | | ART UNIT | PAPER NUMBER |
| WASHINGTO | ON, DC 20006 | | 2124 | |
| | • | | DATE MAILED: 05/06/200- | 4 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | - / / / |
|---|---|---|---------|
| | Application No. | Applicant(s) | 1 |
| | 09/522,470 | KATAKURA ET AL. | |
| Office Action Summary | Examiner | Art Unit | |
| | Chat C. Do | 2124 | |
| The MAILING DATE of this communication Period for Reply | n appears on the cover sheet - | with the correspondence address | |
| A SHORTENED STATUTORY PERIOD FOR RI THE MAILING DATE OF THIS COMMUNICATION - Extensions of time may be available under the provisions of 37 CF after SIX (6) MONTHS from the mailing date of this communication - If the period for reply specified above is less than thirty (30) days, - If NO period for reply is specified above, the maximum statutory powers - Failure to reply within the set or extended period for reply will, by a communication of the period for reply will, by a communication of the period for reply will, by a communication of the period for reply will, by a communication of the period for reply will, by a communication of the period for reply will, by a communication of the period for reply will, by a communication of the period for reply will, by a communication of the period for reply will, by a communication of the period for reply will, by a communication of the period for reply will be communication. | ON. FR 1.136(a). In no event, however, may in. a reply within the statutory minimum of the criod will apply and will expire SIX (6) MC statute, cause the application to become | a reply be timely filed hirty (30) days will be considered timely. NTHS from the mailing date of this communication ABANDONED (35 U.S.C. § 133). | on. |
| Status · | | | |
| 1) Responsive to communication(s) filed on | 1/8/2004; 2/26/2004. | | |
| | This action is non-final. | | |
| 3) Since this application is in condition for all | | tters, prosecution as to the merits i | S |
| closed in accordance with the practice und | der <i>Ex parte Quayle</i> , 1935 C | D. 11, 453 O.G. 213. | |
| Disposition of Claims | | | |
| 4) ☐ Claim(s) 1,2,7,8 and 13 is/are pending in the same states of the above claim(s) is/are withe sign of the above claim(s) is/are withe sign of the above claim(s) is/are allowed. 6) ☐ Claim(s) 1,2,8 and 13 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and sign of the same sign of the sign | ndrawn from consideration. | | |
| Application Papers | | | |
| 9)☐ The specification is objected to by the Example 1 | miner. · | | |
| 10)☐ The drawing(s) filed on is/are: a)☐ | accepted or b)☐ objected to | by the Examiner. | |
| Applicant may not request that any objection to | - · · · | • • | |
| Replacement drawing sheet(s) including the control of the control | · · | • | (d). |
| Priority under 35 U.S.C. § 119 | | | |
| 12) Acknowledgment is made of a claim for for a) All b) Some * c) None of: 1. Certified copies of the priority docur 2. Certified copies of the priority docur 3. Copies of the certified copies of the application from the International But * See the attached detailed Office action for a | ments have been received. ments have been received in priority documents have bee ureau (PCT Rule 17.2(a)). | Application No n received in this National Stage | |
| Attachment(s) | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/Si Paper No(s)/Mail Date | B) Paper N | Summary (PTO-413) o(s)/Mail Date Informal Patent Application (PTO-152) | |

Art Unit: 2124

DETAILED ACTION

- 1. This communication is responsive to Amendment C, filed 01/08/2004.
- 2. Claims 1-2, 7-8, and 13 are pending in this application. Claims 1-2, 7, and 13 are independent claims. In Amendment C, claim 7 is amended and claim 14 is cancelled. This action is made non-final after a Request for Continued Examination filed 02/26/2004.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 1-2, 8, and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Freeman (Re. 34,363).

Re claim 1, Freeman discloses in Figure 2 a logic circuit comprising: a first inversion section (21) for inverting a first input signal (A) having one of positive logic and negative logic and outputting the inverted signal (bar(A)); a second inversion section (22) for inverting a second input signal (B) having the other the positive logic and the negative logic and outputting the inverted signal (bar(B)); and a transmission section (transmission lines that connect all signals to 23-26) for selectively outputting one of the inverted first input signal of first inversion section (output controls by C2 and bar(C2)) and the inverted second input signal of second inversion section (output controls by C3

Art Unit: 2124

and bar(C3)) in accordance with a logical value which depends upon an externally controllable selection signal (Cs) and an inverted signal of the selection signal (bar(Cs)).

Re claim 2, Freeman discloses in Figure 2 a logic circuit (a portion of Figure 2) comprising a first inversion section (21) for inverting a first input signal (A) and outputting the inverted signal (/A); a second inversion section (22) for inverting a second input signal (B) and outputting the inverted signal (/B); a first outputting section (output of 25) for selectively outputting one of the output of first inversion section (/A) and the output of second inversion section (/B) in accordance with a logical value which depends upon an externally controllable first selection signal (C1) and an inverted signal of the first selection signal (/A); and a second outputting section (output of 24) for selectively outputting one of the output of first inversion section and the output of second inversion section in accordance with a logical value which depends upon an externally controllable second selection signal and an inverted signal of the second selection signal (/B and C3).

Re claim 8, Freeman further discloses in Figure 2 comprising a first switching section (area including transmission lines of A, bar(A) and C2, bar(C2)) provided on an input side of first inversion section (21) and capable of performing switching of whether the first input signal should be passed (on) or blocked (off) in accordance with an external control signal (bar(C2)); and a second switching section (area including transmission lines of B, bar(B) and C3, bar(C3)) provided on an input side of second inversion section (22) and capable of performing switching of whether the second input signal should be passed (on) or blocked (off) in accordance with the external control signal (bar(C3)).

Art Unit: 2124

Page 4

Re claim 13, Freeman further discloses in Figure 2 a first inversion section (21) for inverting a first input signal (21) having one of positive logic and negative logic and outputting an inverted first input signal (bar(A)), first inversion section (21) being essentially composed of transistor circuits (col. 4 lines 45-55) each of transistor circuits having a first input signal terminal (input of 21) for the first input signal (A), a first input selection signal terminal (e.g 29c) for the controllable selection signal (e.g C1) and an outputting terminal (input to 23) for outputting the selection signal (C2) or the inverted signal (bar(C2)) based on the logic of the first input signal (A); a second inversion section (22) for inverting a second input signal (B), second inversion section (22) being essentially composed of transistor circuits each (col. 4 lines 45-55) of transistor circuits having a second input signal terminal (input to 22) for the second input signal (B), a second input selection signal terminal (e.g. 29d) for the controllable selection signal (e.g. C0) and an outputting terminal (input to 25) for outputting the selection signal (C3) or the inverted signal (bar(C3)) based on the logic of the first input signal, and a transmission section (all the connection bus between inverters to other logic components) for selectively outputting one of the output of first inversion section (21) and the output of second inversion section (22) in accordance with a logical value which depends upon an externally controllable selection signal (C2 and C3) and an inverted signal of the selection signal (bar(C2) and bar(C3)).

Allowable Subject Matter

5. Claim 7 is allowed.

first input signal.

Art Unit: 2124

Page 5

Response to Arguments

- 6. Applicant's arguments filed 01/08/2004 have been fully considered but they are not persuasive.
 - a. The applicant argues in page 7 for claim 1 second paragraph that it is clear from the claim language the second input signal is the opposite logic as the first input signal.

 The examiner respectfully submits that the claim language does not obviously state nor inherently state that the second input signal is the opposite logic as the
 - b. The applicant argues in page 7 for claim 1 fourth paragraph that the selection signals of the cited reference do not serve the same functions as explained in the paragraph bridging page 28 line 9 and page 29 line 6 of the written specification in the present invention.

The examiner respectfully submits that based claim language does not disclose or teach the functions as explained in the paragraph bridging page 28 line 9 and page 29 line 6 of the written specification. Therefore, the disclosed selection signal in the cited reference clearly meets the selection signal cited in the claim.

c. The applicant argues in page 9 second paragraph for claim 8 that the reference does not the first switching section and the second switching section as seen in Figure 1 of the present invention.

Art Unit: 2124

The examiner respectfully submits that based on the claim language, the cited reference clearly disclose the first switching section (e.g. C2 and /C2) and the second switching section (e.g. C3 and /C3).

d. The applicant argues in page 10 for first paragraph claim 13 that the cited reference does not disclose two transistors as shown in Figure 1 of the present application.

The examiner respectfully submits that the cited reference clearly discloses as seen in Figure 2 two transistor circuits for converting the input signal and being controlled by selection signal.

In general, the claim language does not disclose precisely and uniquely the limitations in Figures 1-2 and 20 as applicant tried to argue. Therefore, the cited reference clearly discloses all the limitations in the claim of the present application and rejected clearly as cited above in the rejection purely based on the claim language.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

Art Unit: 2124

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do Examiner Art Unit 2124

April 20, 2004

TODD INGBERG
PRIMARY EXAMINER